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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,699	10/20/2000	Kiyoshi Ueyoko	0229-0612P	7541

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EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 08/28/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

mk-8

Office Action Summary

Application No.

09/692,699

Applicant(s)

UEYOKO, KIYOSHI

Examiner

Justin R Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 8 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1-14, applicant has amended independent claim 1 to require "an intersecting angle of said first linear portion and said second linear portion at the point P being in a range of from 15 to 60 degrees". However, the claim as originally drafted required that "the second linear portion extended radially inwards from the point P (defined as the intersection of first and second linear portion) while inclining axially inwards at an angle of from 15 to 60 degrees". It is unclear what the amended limitation regarding an "intersecting angle" means and further, how it differs from the angle limitation, defined as θ_2 , that was and remains a part of independent claim 1. Applicant is asked to clarify the relationship between the relevant angles since it appears that they are defining the same sidewall curvature, without the introduction of new matter.

Regarding claim 5, in describing the distance "t", applicant states that said distance is "substantially constant". It is unclear what specific limitations this language adds to the claim, especially since claim 6 requires that said distance "gradually increases", rendering the claim indefinite. It is the examiner's position that, as currently drafted, the distance can be simultaneously "substantially constant" and "gradually

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increasing", as is the case in Ueyoko, since only a small increase in the distance over a given radial extent would satisfy both of these limitations. Applicant is asked to clarify the term "substantially constant" without the introduction of new matter.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueyoko (US 5,772,811, of record). As best depicted in Figure 1, Ueyoko teaches the manufacture of pneumatic tires comprising: a tread portion, a pair of sidewall portions, a pair of bead portions, a carcass ply of cords extending between bead assemblies and having turnup portions that adjoin the main portion above the respective bead assemblies, and a sidewall/bead configuration having the claimed curvature and dimensions. The examiner has pointed out the key tire elements, including the first and second substantially straight linear portions, in Figure 1 of the reference. In this instance, the second linear portion is disposed at an angle that is approximately 16 degrees with respect to the equatorial plane of the tire in accordance to the limitations of the claimed invention. The reference, however, fails to expressly describe an embodiment in which the carcass turnup end point is within a distance of 0.5 times a quantity "gt" from a point Q. While the reference fails to expressly suggest this quantitative relationship, it is clearly evident from Figures 1 and 2 that the carcass

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turnup is extremely close to the point Q, it being noted that the embodiments in Figures 1 and 2 are exemplary and one of ordinary skill in the art at the time of the invention would have readily appreciated the spacing of the claimed invention since the reference generally communicates that the carcass turnup end point and the point Q are extremely close. It is additionally noted that applicant has failed to provide any unexpected results to establish a criticality for the claimed range, wherein the embodiments in Table 1 either having a relevant distance of 0 mm or a relevant distance of 4 times "gt". As such, one of ordinary skill in the art at the time of the invention would have readily appreciated the outer sidewall profile of the claimed invention in view of Ueyoko.

With respect to claims 2 and 10, Ueyoko does not specifically compare the section height with the height of point P. In any event, the reference does suggest that the height H9 is between 0.1 and 0.3 times the height h_k , measured as the height to the radially outer portion of the carcass along the equatorial plane. Therefore, since the point P is slightly above the height H9 and below the height of the maximum section width, it is evident that the point P necessarily extends between the broad range of 0.15 to 0.4 times the section height.

Regarding claims 3, 11, and 12, Figure 1 of Ueyoko clearly suggests that the first and second linear portions have lengths that fall within the ranges of the claimed invention. It should be further noted, with respect to the first linear portion, applicant has defined said first linear portion as being "substantially straight" and inclined at an angle between ± 5 degrees. Thus, in view of these descriptions, the first linear portion in

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Ueyoko can be viewed as extending from the maximum section width height to the point P (outlined in orange by examiner), wherein the radial extent of said first linear portion would fall within the broad range of 0.05 to 0.40 times the tire section height.

With respect to claim 4, Ueyoko defines a third linear portion that is substantially parallel to the tire equatorial plane, as depicted by the examiner in Figure 1 of the reference.

As per claims 5 and 6, as set forth in 112, 2nd paragraph rejection above, it is unclear how the term "substantially constant" defines the spacing between the main and turnup portions of the carcass. In any event, Ueyoko suggests the arrangement of a thin rubber layer having a thickness below 1.6 millimeters in the adjoining portion. Therefore, the combination of topping rubber and a thin rubber layer separate the carcass cords in the adjoining portion. It is the examiner's position that a cord to cord distance in this region would necessarily be within the broad and conventional range of the claimed invention unless the topping rubber was extremely large, in which case one would expect a description or reason to support such an unconventional design. Thus, one of ordinary skill in the art at the time of the invention would have readily appreciated and expected such a design because, not only does the claimed invention define a conventional and well-known structure, but also Ueyoko suggests the aforementioned cord spacing in the referenced drawings.

Regarding claims 7 and 13, as previously noted, the apex height is suggested to range between 10 and 30% of the carcass height along the equatorial plane, which

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suggests an apex height that almost directly correlates with the range of the claimed invention since the section height is slightly larger than said carcass height.

With respect to claim 9, applicant has included all the limitations of claim 1 and further required that a third, substantially straight portion extend from the radially inner end of the second linear portion to the vicinity of the bead heel. As described above and depicted in Figure 1 of Ueyoko, all three substantially straight linear portions are suggested by the reference in accordance to the limitations of the claimed invention.

Allowable Subject Matter

5. Claims 8 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. There was no reference in the prior art search that suggested the manufacture of a pneumatic tire having the specific sidewall outer profile of the claimed invention, including first and second linear portions that are slightly curved concavely when the tire is unloaded and inflated to normal pressure or an adjoining portion that extends radially inward of the inner end of the second linear portion.

Response to Arguments

6. Applicant's arguments filed June 17, 2002 have been fully considered but they are not persuasive. Applicant provides a plurality of arguments with respect to the use of Ushikubo, Madec, and Ueyoko. In this instance, applicant has amended the claims to require that the radial distance between the end point of the carcass turnup and a point Q is less than 0.5 times a distance "gt", wherein said end point is radially outward

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of the bead apex. Both Ushikubo and Madec depict a sidewall profile structure in which the end point of the carcass turnup is significantly different from the point Q and while it is recognized that each of the associated figures is only exemplary, one of ordinary skill would not have recognized the references to suggest the claimed radial spacing of less than 0.5 times "gt", especially since the end point of the carcass is required to be radially outward of the bead apex. As such, the rejections with respect to Madec and Ushikubo have been withdrawn. However, the rejection with respect to Ueyoko is still applicable since the reference generally communicates that the relevant radial distance is extremely small. While applicant contends that the distance in Figure 1 of Ueyoko is 1 times "gt", the examiner initially stated, "the distance is within 1 times "gt" (Paper Number 6, Paragraph 4). The reference does not provide a quantitative relationship between the relevant points; however, it is clear that the points are extremely close to one another such that one of ordinary skill in the art at the time of the invention would have readily appreciated embodiments in which the claimed spacing of less than 0.5 times "gt" is satisfied. Furthermore, applicant has failed to provide any unexpected results to establish a criticality for the claimed spacing.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers


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for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Justin Fischer

August 26, 2002


Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700